Distr:4E3d/4E4j

Continuous process for the hydrolysis of boric acid esters of higher aliphatic alcohols with simultaneous extraction and regeneration of boric acid. N. I. Gel'perin and K. N. Solopenkov. *Khim. Nauka i Prom.* 1, 521-31(1956).—The process described effects the isolation of the higher aliphatic alcs. from paraffin hydrocarbons by a modification of the Bashkirov borate ester method for borate esters of the types $(CH_3(CH_2)_nCH_2O)_3B$ and $(CH_3(CH_2)_nCH_2O)_2BOH$. Hydrogenated synthetic oils (synthols) of the 270-320° range yield alc. mixts. with acid nos. 6.2, 5.0; OH nos. 198, 212; I nos. 4.5, 7.0; and carbonyl nos. —, 19.0. Total recovery of boric acid is over 97%. The process has the basic technological advantages that it: (a) carries out the extn. process by use of the secondary vapors obtained by vaporizing the weak solns. of boric acid, i.e., without the expenditure of live steam; (b) effects direct recovery of over 75% of the boric acid in the aq. fraction after hydrolysis; (c) combines the process of sapon. with the process for the regeneration of boric acid from the point of view of the material balance; (d) does away with the condenser for secondary vapor and the recompressor pumps for producing a countercurrent of alc. and water in the extn. columns. App. used and the exptl. results obtained are given. F. W. Rathmann

GEL'PERIN, N.I., doktor tekhn.nauk; SOLOPENKOV, K.N., kand.tekhn.nauk; ARSEN'YEV, D.M.

Continuous sulfonation of synthetic aliphatic alcohols. Masl.-zhir. prom. 24 no.10:22-26 '58. (MIRA 11:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova (for Gel'perin, Solopenkov). 2. Gosudarstvennyy nauchno-tekhnicheskiy kontrol' Soveta Ministrov RSFSR (for Arsen'yev).
(Alcohols) (Sulfonation)

MURASHKIN, A. (Moskva); SOLOPENKOV, V. (Moskva)

Lenin rooms. Pozh.delo 6 no.5:18 My '60. (MIFA 13:8)
(Firemen) (Adult education)

5.411.6
15.2220

67665
SOV/126-8-6-13/24

AUTHORS: Matyushenko, N.N., Yefimenko, L.N. and Solopikhin, D.P.

TITLE: Existence of the Silicide W_3Si

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 6, pp 878-880 (USSR)

ABSTRACT: The authors point out that the question of the existence of W_3Si has not been settled (Ref 2,3) in spite of the considerable volume of published X-ray data on the silicides of high-melting VI group metals. The conversion of higher into lower molybdenum or tungsten silicides which occurs when the surface-silicided metals are heated to about 1700°C is accomplished with the participation of a chemical reaction governed by redistribution of s- and d-electrons in the metals. The authors give this reaction in terms of the number of molecules in the unit cell and using published (Ref 1) X-ray data, calculate the volume percentage of the phases (Table 1). From considerations of isomorphism the authors calculated the W_3Si lattice parameter $a = 4.910 \pm 0.01$ Å and prepared specimens in which this phase could be observed metallographically and by X-ray diffraction. Tungsten (99% W) cylinders 20 mm in diameter were saturated to a depth of about

Card 1/2

Existence of the Silicide W_3Si

100 microns, with silicon (99% Si) in a neutral atmosphere to give two phases: WSi_2 and W_5Si_3 (Fig 1). On heating to 1700°C in air W_3Si was found at the W/W_5Si_3 boundary (Fig 2), from which a diffraction pattern (Fig 3) was obtained. This phase had a texture due to that of the tungsten. The authors compare (Table 2) the experimental and calculated crystallographic values for W_3Si. The lattice parameter was found to be $a = 4.910 \pm 0.005$ Å, the X-ray density $d = 16.2$ g/cm^3. There are 3 figures, 2 tables and 3 references, 2 of which are Soviet and 1 English.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR
(Physico-Technical Institute, AS UkrSSR)

SUBMITTED: June 26, 1959

Card 2/2

SOLOPIKHIN, D.P.

S/120/62/000/002/031/047
E140/E163

AUTHORS: Berezin, A.K., Stupak, V.G., Berezina, G.P., Balatin, I.I., Lyapkalo, Yu.M., Solopikhin, D.P., and Bondarenko, V.P.

TITLE: High power electron gun for operation under difficult vacuum conditions

PERIODICAL: Pribory i tekhnika eksperimenta, no.2, 1962, 136-138.

TEXT: An electron gun is described giving 20 A at 25 kV in a vacuum of 5×10^{-5} mm Hg. The cathode is a cylindrical tablet of lanthanum hexaboride, vacuum-sintered, and located in the homogeneous region of the focussing magnetic field. A grid-form anode is used, resulting in a smaller defocusing field than the more usual pierced disc (Fig.1). The transparency of such an anode is also satisfactory. The anode mesh is of tungsten wire 60 μ diameter with a pitch of 1.5 mm. In plasma interaction experiments the gun was used for several months under continuous evacuation without replacement of any of its parts. There are 4 figures.

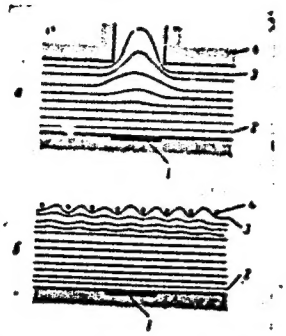
Card 1/2

High power electron gun for ... S/120/62/000/002/031/047
E140/E163

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR
(Physicotechnical Institute, AS Ukr.SSR)

SUBMITTED: July 26, 1961

Fig.1



Card 2/2

SOLOPIKHIN, I.

Center of public attention. Pozh.delo 5 no.7:13-14 Jy '59.
(MIRA 12:9)

1. Inspektor Otdela pozharnoy okhrany. Khersonskogo oblispolkoma.
(Kherson Province--Motion-picture projection--Safety measures)

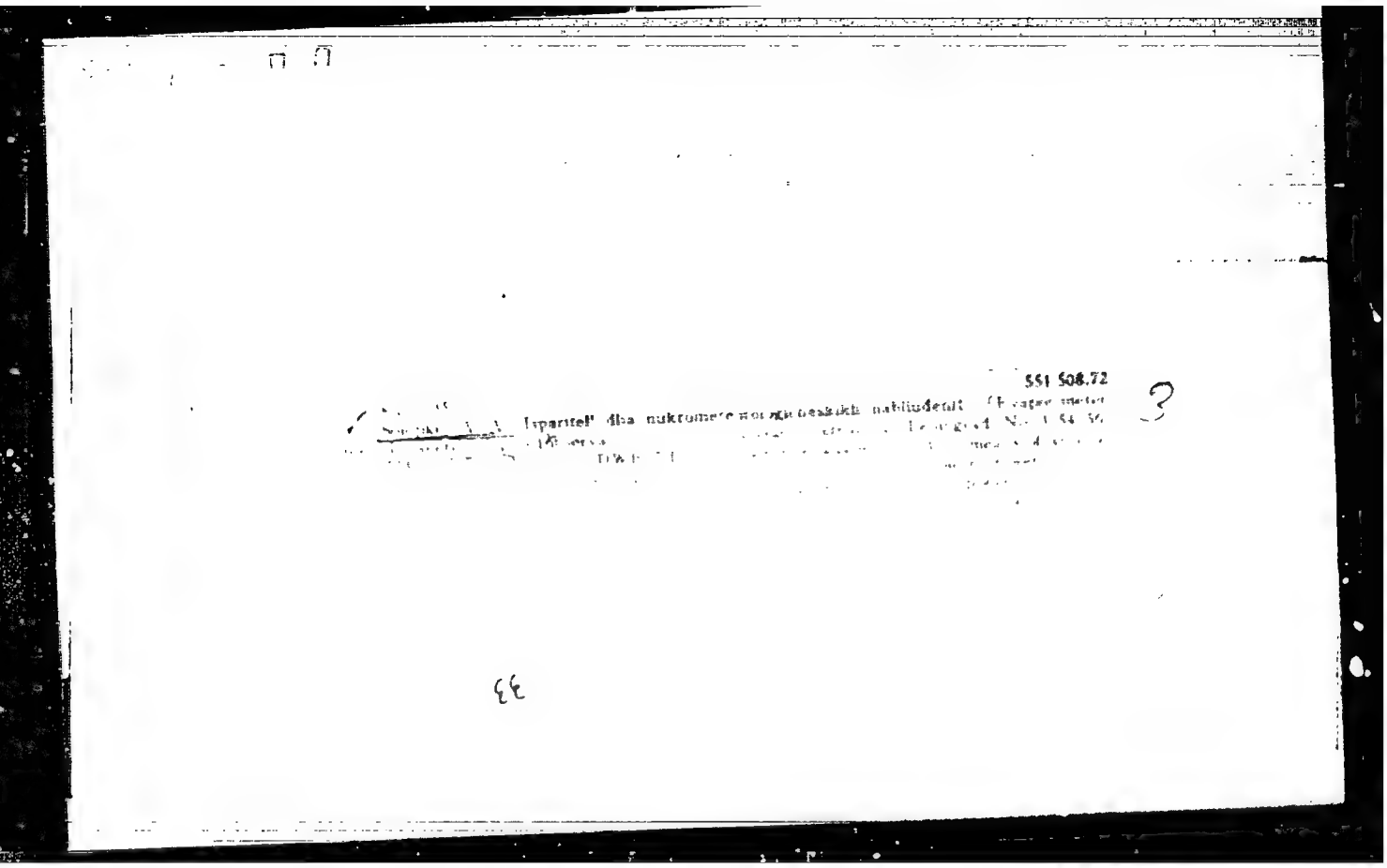
SOLOPIY, Ivan Stepanovich; SHKKL', Georgiy Konstantinovich; KOLOMIYTSEV, A.D., otv.red.; SHKLYAR, S.Ya., tekhn.red.

[The KS-10 scraper conveyers] Skrebkovye konveiery KS-10. Moskva, Ugletekhizdat, 1959. 38 p. (MIRA 12:8)
(Scrapers) (Conveying machinery)

MALOV, R.V., kand. tekhn. nauk; GARGALA, R.V., inzh.; IGNATOVICH, I.V.; SOLOPIY, I.S., inzh.

Developing and testing exhaust gas neutralizers for diesel-electric powered trucks. Gor. zhur. no. 12:70-72 D '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy i konstruktorskiy institut toplivnoy apparatury avtotraktornykh i statsionarnykh dvigateley (for Malov, Gargala, Ignatovich). 2. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo mashinostroyeniya (for Solopiy).



СОЛОПКО А.А.

PA - 3375

AUTHOR: POGREBNYAK,P.S., Member of the Academy of Science of the Ukrainian SSR, IL'KUN,G.M., SOLOPKO, A.A.

TITLE: The Registration of Water Expenditure by Forests with the Help of the Evaporation Gradient. (Uchet rashkoda vlagi lesom po gradientu isparyaemosti, Russian)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 454 - 457 (U.S.S.R.)

ABSTRACT: In soil science, in the physiology of plants, and in forestry two methods of registering the transpiration of wood plants have come into use:
1) an indirect one - the ground balance method (Vysotskiy) and
2) a direct, physiological one (Ivanov).
Although they are sufficiently exact and the difference of their results does not exceed ± 5 %, they are technically complicated and require too intense manipulation. The recently elaborated gradient measuring of the diffusion transformation of water vapor and the determination of the coefficient of the turbulent diffusion were not satisfactory. The last mentioned author suggested taking the evaporation capacity in form of an exponent which integrates the factors causing the evaporation as basis of the gradient method instead of the specific humidity and of the coefficient of the turbulent diffusion. The elementary case

Card 1/3

The Registration of Water Expenditure by Forests with the Help of the Evaporation Gradient. PA - 3375

is based on the hypothesis that the evaporation process of the active surface of the investigated object is proportional to the difference of the evaporation capacity in two different heights between which the diffusion exchange takes place. A paper filter of 25 cm^2 was chosen as evaporation surface. The authors investigated one year old red pine seedlings and one year old stand of Canadian poplars, moreover 4 year old stands of pine and red oak groups. The evaporators were located to in the leafiest parts of the trees and 1,5 m above them. Cut off branches served as control according to Ivanov. From schedule 2 it is evident that the results of both methods are close to each other. In further investigations an additional pair of the gradient apparatuses of A.A.Solopko was used at two points: 1) open on the ground surface, 2) at the same height, covered by tar paper. In the summer of 1956 single standing pines, birchtrees and oaks, 10 - 15 years old, were investigated. Transpiration was computed by means of the formula:

$$T = \pi RLU - \pi R^2 U_o = \pi R(lU \cdot RU_o),$$

where R - is the radius of the lower top cross-section and l - the cone constituent. Schedule 3 proves the applicability of this method. In a dense stand there is no necessity of measuring the tops of the trees. Transpiration conditions in a forest are

Card 2/3

The Registration of Water Expenditure by Forests with the Help of the Evaporation Gradient. PA - 3375

different to those of a single tree: in open land the gradient of the evaporation capacity increases from 1 - 2m following a straight line. In the vertical profile of the forest there are two minima of the evaporatinn capacity: in the air layer near to the ground and inside the top cover. As known, the daily curve of plant transpiration is comparable with the saturation deficiency. In the case under investigation the proportionality between the gradient of the evaporation capacity and the transpiration of the stand is confirmed.
(3 schedules, 6 citations from Slav publications)

ASSOCIATION: Starosel'sk Biological Station of the Research Institute of the Academy of Science of the Ukrainian SSR

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 3/3

Determining the Moisture Discharge From an Orchard Surface by the Vertical Gradient of Evaporation

vals of time.
There are: 1 table, 1 diagram, and 2 Soviet references.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii (Ukrainian Scientific Research Institute of Hydraulic Engineering and Melioration)

PRESENTED: By Member of the AS UkrSSR, P.S. Pogrebnyak

SUBMITTED: April 19, 1957

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

GALANOV, I.G., otv. red.; MATLAKHOV, S.G., otv. red.; POLESIN, Ya.L., red.; BOGOMOLOV, A.I., red.; ZHELEZNYAKOVA, M.A., red.; ZHIDOVETSKIY, B.V., red.; ZIL'BERSHTEYN, I.A., red.; KANER, I.Ye., red.; KLYUYEVA, Ye.P., red.; KOZLOVA, Ye.I., red.; MAKAROV, A.D., red.; SAMARTSEV, A.I., red.; SOLOPKO, A.P., red.; TIKHONOV, V.A., red.; VOLKOVA, V.A., ved. red.

[Safety regulations in the gas industry; regulations obligatory for all ministries, departments, and organizations] Pravila bezopasnosti v gazovom khoziaistve; pravila obiazatel'ny dlia vsekh ministerstv, vedomstv i organizatsii. Perer. i dop. izd. Moskva, Nedra, 1965. 143 p. (MIRA 18:3)

1. Russia (1917- R.S.F.S.R.) Gosudarstvennyy komitet po nadzoru za bezopasnym vedeniem rabot v promyshlennosti i gornomu nadzoru.

PINEGIN, G.N., mladshiy nauchnyy sotrudnik; LYSIKOVA, V.M., nauchnyy sotrudnik; PORCHKHIDZE, S.A., nauchnyy sotrudnik; SEMINA, N.A., nauchnyy sotrudnik; SOLOPOV, A.V., nauchnyy sotrudnik; RADUS, A.I., nauchnyy sotrudnik; STEL'MAKH, F.N., nauchnyy sotrudnik; YEFIMOV, P.L., otvetstvennyy red.; PROTOPOPOV, V.S., red.; FLAUM, M.Ya., tekhn. red.

[Manual for the preparation of aerological yearbooks] Rukovodstvo po podgotovke aerologicheskikh ezhegodnikov. Leningrad, Gidrometeor. izd-vo. Pt.3. [Temperature sounding of the atmosphere] Temperaturnoe zondirovanie atmosfery. 1958. 126 p. (MIRA 11:9)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. 2. Glavnaya geofizicheskaya observatoriya (for Pinegin). 3. TSentral'naya aerologicheskaya observatoriya (for Lysikova, Porchkhidze, Semina, Solopov). 4. Nauchno-issledovatel'skiy institut aeroklimatologii (for Radus, Stel'makh).
(Radio meteorology)

DEVYATOVA, V.A.; DEMENT'YEV, N.F.; YELFIMOV, A.V.; KUPYANSKAYA, A.P.; MAKSIMOVA, A.A.; MARGOLIN, L.M.; RUDNEV, G.V.; SIROTOV, K.M.; SOLOPOV, A.V.

Conferences, meetings, and seminars. Meteor.i gidrol. no.11:68-70 N '62. (MIRA 15:12)
(Hydrology—Congresses) (Meteorology—Congresses)

SOLOPOV, A.V.

Basic climatic characteristics of Bunger's "Oasis." Meteor.i gidrol. no.6:36-40 Je '61. (MIRA 14:5)
(Bunger Hills, Antarctica--Climate)

SOLOPOV, A.V.

Atmospheric fronts in Antarctica. TRUDY TSIP no.115:149-167 '62. (MIRA 16:6)

(Antarctic regions—Atmosphere)

[redacted], M., . P., ed.

Fruit Culture

"Problems of selection and scientific agriculture in fruit and berry cultivation." G. P. Solov'yov, ed. Reviewed by S. Gruzdov. Sad i ogo., No. , 1952.

Monthly List of Russian Accessions. Library of Congress. October 1952 UNCLASSIFIED.

1. SOLOPOV, G.P.: IVANOV, P.P.

2. USSR (600)

4. Fruit Culture

7. Work practice of the Moscow Regional Fruit and Berry Experiment Station. Dost. sel'khoz. no. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SOLOPOV, G. P.

Moxcow Province - Fruit Culture

Same problems of fruit growing in Moscow Province. Sad i og. no. 1, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

[illegible], G.

Ukhod za sadom (Taking care of the fruit garden). Moskva, "Mosk. rabochii," 195[illegible]. [illegible] p.

LC: Monthly List of Russian Accessions, Vol. 7, No. 7, Oct. 195[illegible]

SOLOPOV, G. P.

The cultivation of strawberries in the non-chernozem region of the USSR Moskva, Gos. izd-vo selkhoz. lit-ry, 1955. 86 p.

1. Strawberries.

SOLOPOV, G.P., red.

[Best fruit and berry varieties] Luchshie sorta plodovo-iagodnykh kul'tur. Moskva, 1957. 270 p. (MIRA 13:12)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye sel'skokhozyaystvennoy nauki.
(Fruit trees--Varieties) (Berries--Varieties)

M

Country : USSR
Category: Cultivated Plants. Fruits. Berries.

Abs Jour: RZhBiol., No 22, 1958, No 100462

Author : Solopov, G.P.
Inst : -
Title : Surface Feeding of Cherry with Radioactive Elements.

Orig Pub: Vestn. s.-kh. nauki, 1957, No 2, 61-66

Abstract: The influence of surface feeding of Vladimirskaya cherry on the yield and quality of the fruits, was studied in the experiment carried out at Moscow Fruit and Berry Experiment Station. The leaves of the trees aged 5 years were sprayed with 0.05% H_3BO_3; 0.08%

Card : 1/4

M

Country : USSR
Category: Cultivated Plants. Fruits. Berries.

Abs Jour: RZhBiol., No 22, 1958, No 100462

$ZnSO_4$; 0.08% ammonium molybdate; 0.05% $CuSO_4$; 1% NH_4NO_3; 1% KCl or 1% Fe and also with Ra^{227}, Zn^{65} or Co^{60}. 0.5 liters of the solution were expended on each tree. The activity of the radioactive elements comprised: Ra^{227} 10-10, Co^{60}-10-10, Zn^{65} 3.2 . 10^{-8} curies to 100 milliliters of the solution. The plants were treated twice - in the middle of May and in the beginning of June. In the calculation of the yield, it was found that with the spraying with N, P and K, the yield of fruits from 1 tree was almost unchanged, and sometimes decreased by 10-30%. After the spraying with Cu, MO, B + Cu and B + Mo

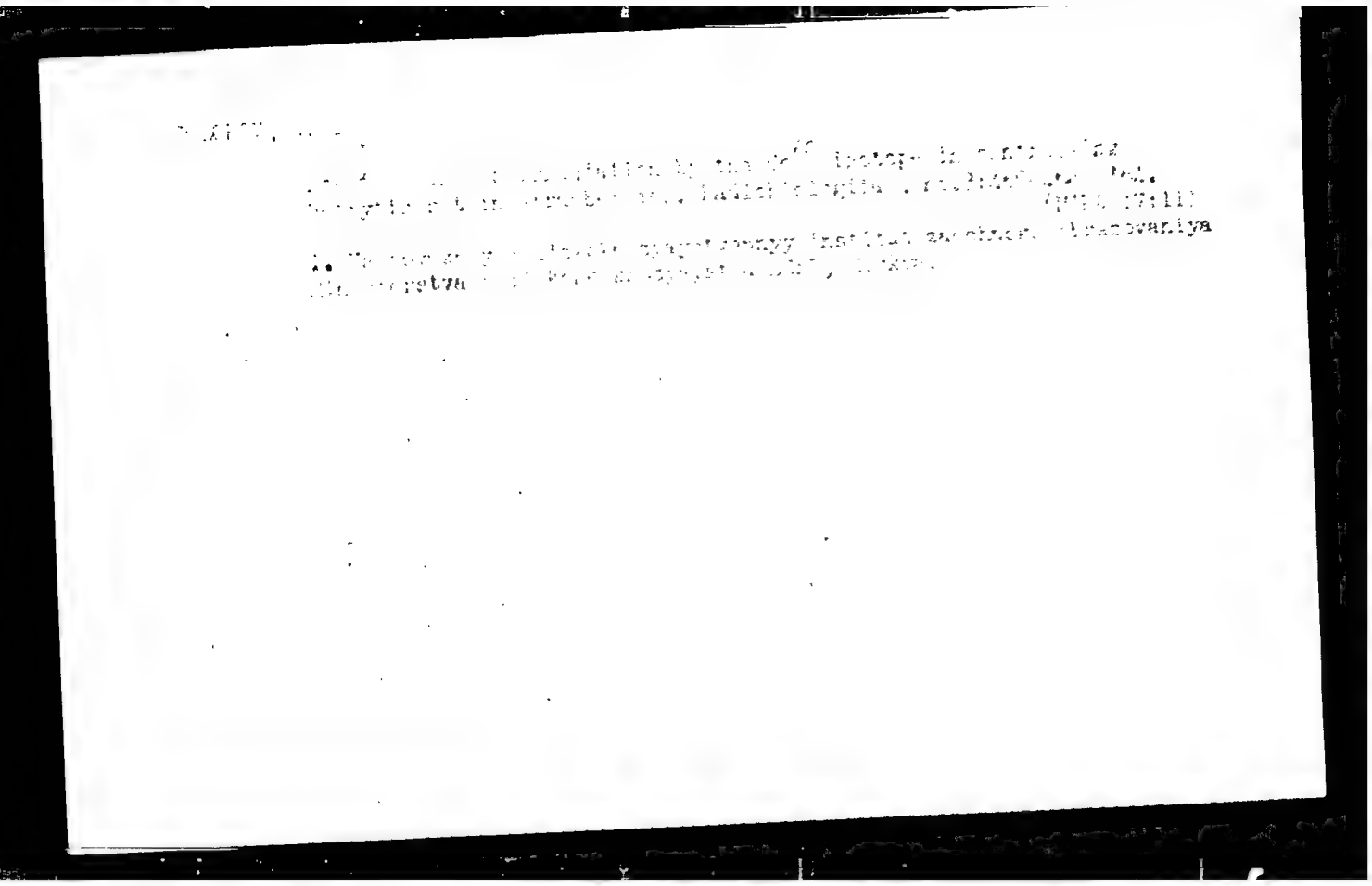
Card : 2/4

SOLOPOV, Grigoriy Platonovich, kand. sel'khoz. nauk; ROZHKOV, M.I., prof., red.; SHULEYKIN, P.A., red.; NAZAROVA, A.S., tekhn. red.

[The orchard bears fruit every year] Sad plodonosit ezhegodno. Pod red. M.I.Rozhkova. Moskva, Izd-vo "Znanie," 1963. 45 p. (Narodnyi universitet kul'tury: Sel'skokhoziaistvennyi fakul'tet, no.1) (MIRA 16:3)
(Fruit culture)

ZATUCHNAYA, Anna L'vovna; ZUBAREV, Matvey Nikodimovich; PANTELEYEV, Viktor Stepanovich; SEREBRO, Grigoriy Yakovlevich; SOLOFOV, Grigoriy Platonovich, kand. sel'khoz. nauk; SELEZNEV, N.G., red.

[Orchards and berry patches] Sady i iagodniki. [By] A.L. Zatuchnaia i dr. Tula, Tul'skoe knizhnoe izd-vo, 1963. 215 p. (MIRA 17:6)



FRADKIN, I.Z.; SOLOPOV, I.I.

Protection of the roadbed against washouts. Put' i put.khoz. 4 no.9: 6-8 S '60. (MIRA 13:9)

1. Nachal'nik geofizicheskoy stantsii g.Novosibirsk (for Fradkin).
2. Starshiy gidrometeorolog geofizicheskoy stantsii g.Novosibirsk (for Solopov).

(Shore protection) (Railroads--Track)

FRADKIN, I.Z.; SOLOPOV, I.I., starshiy gidrometeorolog (g.Novosibirsk)

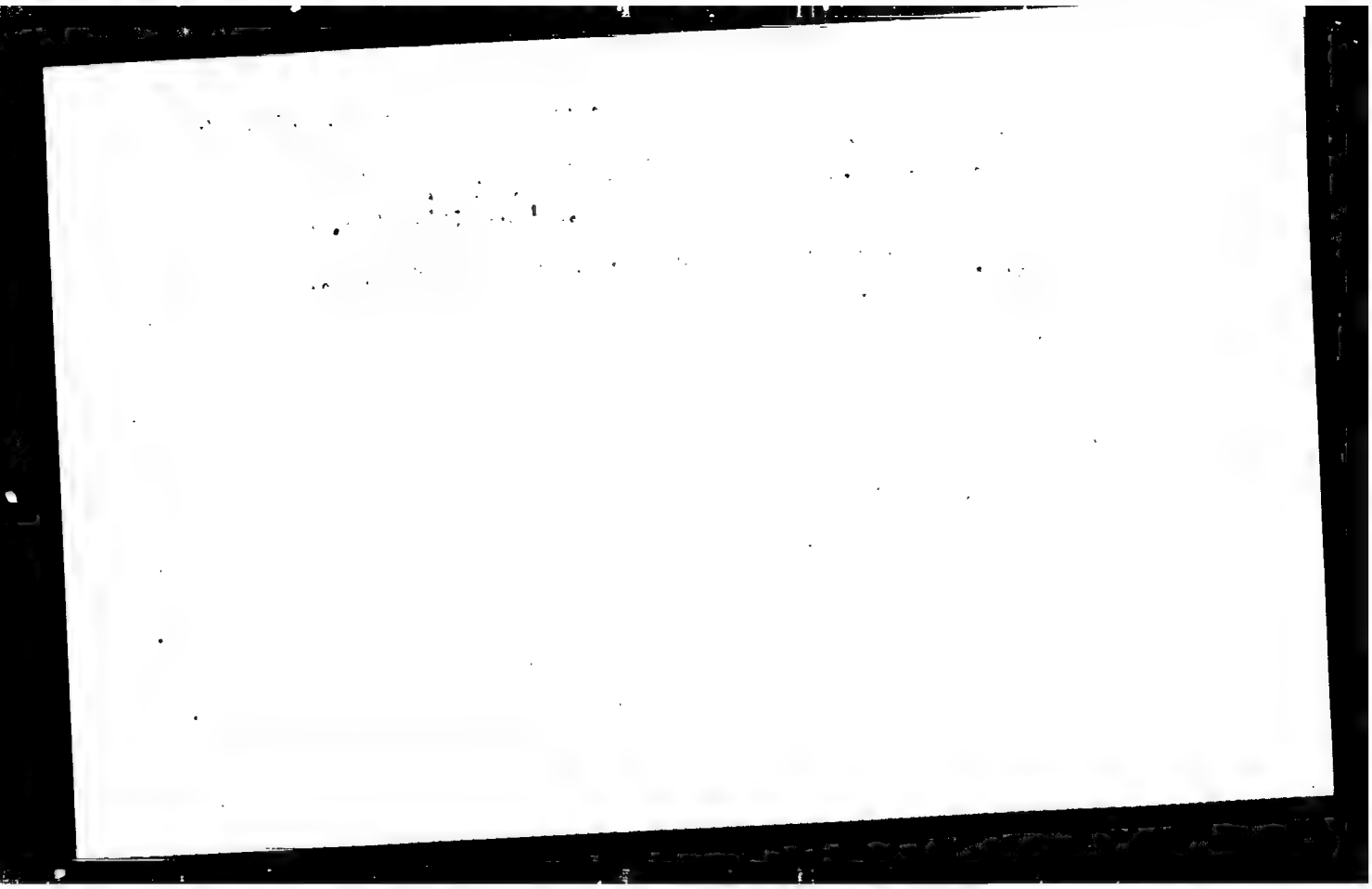
Snow guards with irregular slots. Put' i put.khoz. 4 no.10; 17-19 O '60. (MIRA 13:9)

1. Nachal'nik geofizicheskoy stantsii, g. Novosibirsk.
(Railroads--Snow protection and removal)

FRADKIN, I.Z.; SOLOPOV, I.I.

Time has come to create new types of tree belts. Put' i put.khoz. 7 no.8:43-44 '63. (MIRA 16:9)

1. Nachal'nik geofizicheskoy stantsii sluzhby puti Zapadno-Sibirskoy dorogi, Novosibirsk (for Fradkin). 2. Starshiy meteorolog geofizicheskoy stantsii, Novosibirsk (for Solopov).



DAVYDOV, B.M.; SOLOPOV, N.A.

Large block erection of an automatic cement and concrete plant. (MLRA 9:2)
Avt.der.18 no.6:13-14 O '55.
(Concrete plants)

AMIRKHANOV, N.A.; SOLOPOV, N.S.

Introducing Crambe kotschyana Boiss into cultivation. Biul.Glav. bot.sad no.52:32-34 '64. (MIRA 17:4)

1. Samarkandskiy gosudarstvennyy universitet imeni Alishera Navoi.

SHNEPP, V.B., inzh.; SOLOPOV, N.Ya., inzh.

High-pressure circulation centrifugal compressor. Khim. i neft. mashinostr. no.1:8-10 Jl '64. (MIRA 17:12)

SOLOPOV, Sergey Georgiyevich

(Moscow Peat Inst), Academic degree of Doctor of Technical Sciences, based on his defense, 11 March 1955, in the Council of the Inst of Mining of the Acad Sci USSR, of his dissertation entitled: "Bases of the complex mechanization of the mining of peat for fuel by excavation process with the lowering of operating humidity" and Academic title of Professor. Chair: "Mechanics of Peat."

Academic degree and/or title: Doctor of Sciences and Professor

SO: Decisions of VAK, List no. 17, 9 Jul 55, Byulleten' MVO SSR, No. 17, Sept 56, Moscow, pp 9-16, Uncl. JPRS/NY-435

BAUSIN, A.F.; SOKOLOV, A.A.; ANTONOV, V.Ya.; KURDYUMOV, S.V.; BEL'KEVICH, P.I.; SAVINYKH, A.I.; KARAKIN, F.F.; SOLOPOV, S.G.; YEFIMOV, V.S.; YAROVITSIN, V.I.; RABKIN, B.A.; BABARIN, A.F.; MATVEYEV, L.M.; FUNIKOV, S.A.; CHERNENKOV, D.P.; BULAYEVSKIY, N.V.; kandidat tekhnicheskikh nauk; SHINKARINK, K.K.; TSUPROV, S.A.; GINZBURG, L.N.; VASIL'YEV, Yu.K.

Scientific and technical conference on the work of the peat industry of the Ministry of Electric Power Stations. Torf.prom. 32 no.2:1-20 '55. (MLRA 8:5)

1. Zamestitel' ministra elektrostantsiy (for Bausin). 2. Zamestitel' direktora VNIITP (for Sokolov). 3. Zamestitel' direktora MTI (for Antonov. 4.Zamestitel' direktor "Kraiimesttopprom"(for Kurdyumov). 5. Direktor Instituta torfa AN BSSR(for Bel'kevich). 6. Nachal'nik Glavenergozapchasti MES(for Savinykh). 7. Glavnyy inzhener Ivanovsko - go torfotresta (for Karakin). 8. Zamestitel' direktora MTI (for Solo pov) 9. Upravlyayushchiy Shaturskogo torfotresta (for.Yefimov). 10. Glavnyy mekhanik Invanosvkogo torfotresta (for Yarovitsin). 11. Glavnyy mekhanik Leningradskogo torfotresta (for Rabkin). 12. Glavnyy inzhener Ozeretsko-Neplyuyevskogo torfopredpriyatiya (for Babarin). 13. Glavnyy inzhener Ger'kovskogo torfotresta (for Matveyev). 14 Rukovoditel' laboratorii VNIITP (for Funikov). 15. Glavnyy inzhener tresta Lentorfostroy (for Che-nenkov).

(Continued on next card)

SOLOPOV, S.G., prof.

Technological principles of producing quality piece fuel in developing low operational moisture peat deposits. Nauch. dokl. vys. shkoly; gor. delo no.1:41-49 '58. (MIRA 11:6)

1.Predstavlena kafedroy trofyanoy mekhaniki Moskovskogo torfyanogo instituta.

(Peat)

SOLOPOV, S.G., prof., doktor tekhn.nauk

Main problems for research on the complete utilisation of peat and on its deposits. Nauch.dokl.vys.shkoly; gor.delo. no.4:255-257 '58. (MIRA 12:1)

1. Predstavleno Moskovskim torfyanym institutom.
(Peat)

ALEKSEYEV, Ye.T.; APENCHENKO, S.S.; BASOV, A.P.; BAUSIN, A.F.; BERSHADSKIY, L.S.; VELLER, M.A.; GINZBURG L.N.; GUSEV, S.A.; DANILOV, G.V.; DOLGIKH, M.S.; DRUZHININ, M.N.; YEFIMOV, V.S.; ZAVADSKIY, N.V.; IVASHECHKIN, N.V.; KARAKIN, F.F.; KUZHMAN, G.I.; LOBANOV, S.P.; MERKULOV, Ya.V.; NIKODIMOV, P.I.; PANKRATOV, N.S.; PYATAKOV, L.V.; RODICHEV, A.F.; SMIRNOV, M.S.; STRUKOV, B.I.; SAVOCHKIN, S.M.; SAMSONOV, N.N.; SINITSYN, N.A.; SOKOLOV, A.A.; SOLOPOV, S.G.; CHELYSHEV, S.G.; SHCHEPKIN, A.Ye.

Fedor Nikolaevich Krylov; obituary. Torf. prom. 35 no.6:32 '58. (MIRA 11:10)

(Krylov, Fedor Nikolaevich, 1903-1958)

SOLOPOV, Sergey Georgiyevich, prof., doktor tekhn.nauk; ISLANKINA, T.F., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[Peat in the national economy] Torf v narodnom khoziaistve. Moskva, Izd-vo "Znanie," 1959. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.4, Nauka i tekhnika, no.22) (MIRA 12:9)

(Peat industry)

SOLOPOV, S.G., prof., doktor tekhn. nauk; BULAYEVSKIY, N.V., dotsent, kand. tekhn. nauk

Intensive drainage of peat deposits by means of deep drainage ditches. Nauch. dokl. vys. shkoly; gor. delo no.1:15-20 '59. (MIRA 12:5)

1.Predstavlena kafedroy torfyanoy mekhaniki i gidrotekhniki Kalininskogo (b.Moskovsk.) torfyanogo instituta.
(Peat) (Drainage)

SOLOPOV, S.G., prof.

Controlling the caving-in and sliding of peat in open-pit workings. Izv.vys.ucheb.zav.; gor.zhur. no.10:[illegible] '59. (MIRA 13:5)

1. Kalininskiy torfyanoy institut.
(Peat) (Strip mining)

SOLOPOV, S.G., prof., doktor tekhn.nauk; ANISIMOV, P.F., kand.tekhn.nauk

Physical and mechanical properties of vacuum-dried peat and prospects for its use in the national economy. Torf.prom. 37 no.2:13-16 '60. (MIRA 13:6)

1. Kalininskiy torfyanoy institut.
(Peat)

SOLOPOV, S.G.

V.I. Lenin and the development of the peat industry. Torf.prom. 37 no.3:1-6 '60. (MIRA 13:9)
(Peat industry)

SOLOPOV, S.G.

Statements by V.I. Lenin and the decrees of the Council of People's Commissars and of the Council of Labor and Defense pertaining to peat. Torf. prom. 37 no. 3:27-31 '60. (MIRA 14:1)
(Peat industry)

SOLOPOV, S.G., prof., doktor tekhn.nauk

Complete mechanization and automation of operations, and a continuous peat fuel production cycle. Torf.prom. 38 no.2:11-13 '61. (MIRA 14:3)

1. Kaliniskiy torfyanoy institut.
(Peat industry—Automation)

SOLOPOV, S.G., doktor tekhn. nauk; GORTSAKALYAN, L.O., inzh.

Problems of the pneumatic transporation of milled peat in horizontal tubes. Torf. prom. 38 no.6:6-11 '61. (MIRA 14:9)

1. Kalininskiy torfyanoy institut.
(Pneumatic-Tube transportation)
(Peat--Transportation)

SOLOPOV, S.G., prof.; NAZHESTKIN, B.P., kand.tekhn.nauk

Physicomechanical properties of vibrated peat and prospects for using it in the national economy. Izv. vys. uch. zav.; gor. zhur. 5 no.6:9-12 '62. (MIRA 15:9)

1. Kaliningskiy torfyanoy institut. Rekomendovana kafedroy torfyanoy mekhaniki.

(Peat--Testing)

BELOKOPYTOV, I.Ye.; BERESNOVICH, V.V.; BERSHADSKIY, L.S.; VEYTS, L.F.; ZHUKOV, A.G.; IVASHECHKIN, N.V.; KUZHMAN, G.I.; LASHNEV, I.A.; MURASHOV, F.G.; NIKODIMOV, P.I.; PYATAKOV, L.V.; SAMSONOV, N.N.; SEMENSKIY, Ye.P.; SINITSYN, N.A.; SOLOPOV, S.G.; STRUKOV, B.I.; STEBIKHOV, M.I.; TSUPROV, S.A.; CHERNOV, A.A.; CHULYUKOV, M.A.

Ivan Aleksandrovich Monakin. Torf. prom. 37 no. 3:37 '60. (MIRA 14:1)

(Monakin, Ivan Aleksandrovich, 1908-1960)

ABKHAZI, V.I.; ANTONOV, V.Ya.; BELOKOPYTOV, I.Ye.; VARENTSOV, V.S.; GORYACHKIN, V.G.; ZYUZIN, V.A.; KRYUKOV, M.N.; KUZHMAN, G.I.; OZEROV, B.N.; RIVKINA, Kh.I.; SEMENSKIY, Ye.P.; SOKOLOV, A.A.; SOLOPOV, S.G.; STRELKOV, S.S.; TYUREMNOV, S.N.; CHULYUKOV, M.A.

Sergei Alekseevich Sidiakin. Torf.prom. 38 no.2:40 '61. (MIRA 14:3)
(Sidiakin, Sergei Alekseevich, 1897-1960)

SOLOPOV, Sergey Georgiyevich, prof., doktor tekhn.nauk; MURASHOV, Mikhail Vasil'yevich, dots., kand. tekhn. nauk; MIRKIN, Mikhail Abramovich, inzh.[deceased]; ANISIMOV, Pavel Fedorovich, kand. tekhn. nauk; GORTSAKALYAN, Loris Oganesovich, kand. tekhn. nauk; NAZHESTKIN, Boris Petrovich, kand. tekhn. nauk; PESKOV, Vladimir Glebovich, kand. tekhn. nauk; SAMSONOVA, M.T., red.izd-va; YEZHOVA, L.L., tekhn.red..

[Peat machines; their theory, calculation, and design]Torfianye mashiny; teoriia, raschet i konstruirovanie. [By]S.G.Solopov i dr. Moskva, Vysshaia shkola, 1962. 353 p. (MIRA 16:3)
(Peat machinery)

ABKHAZI, V.I.; ANTONOV, V.Ya.; BLYUMENBERG, V.V.; VARENTSOV, V.S.; VELLER, M.A.; ZYUZIN, V.A.; IVANOV, V.N.; KUZIMAN, G.I.; LUKIN, A.V.; MATVEYEV, A.M.; OZEROV, B.N.; PAL'TSEV, A.G.; PEROV, N.P.; PROKHOROV, N.I.; RAKOVSKIY, V.Ye.; SEMEISKIY, Ye.P.; SOLOPOV, S.G.; TYUREMNOV, S.N.; TSUPROV, S.A.; CHULYUKOV, M.A.

Viktor Georgievich Goriachkin; obituary. Torf.prom. 39 no.4:40 '62. (MIRA 15:7)

(Goriachkin, Viktor Georgievich, 1893-1962)

SOLOPOV, S.G., doktor tekhn.nauk; SHERZHUKOV, B.S., kand.tekh.nauk; DZEKTSER, Ye.S.

Intensive draining of peat bogs. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.11:34-37 '62. (MIRA 15:11)
(Peat bogs) (Drainage)

SOLOPOV, S.G., doktor tekhn.nauk, prof., zamestitel' nauk. [illegible] nik] RSFSR

section of peat winning and processing. Torf.prom. 40 no.8:4-7 '63. (MIRA 17:3)

1. Kalininskiy torfyanoy institut.

SOV-117-58-8-25/28

AUTHOR: Solopov, Ye.N., Engineer

TITLE: Exhibits of the Soviet Union (Eksponaty Sovetskogo Soyuza)

PERIODICAL: Mashinostroitel', 1958, Nr 8, pp 43-45 (USSR)

ABSTRACT: In Brussels, several Soviet machines are exhibited which have been presented to the International Jury to be awarded a premium. Among these machines is the automatic line model MR107 (Figure 1). It was produced by the Moskovskiy zavod imeni Ordzhonikidze (Moscow Plant imeni Ordzhonikidze). The machine is used for the production of step rollers of 90 mm in diameter and a length of 380 mm. The coordinate-boring machine with program control model 2A430P (Figure 2) was produced by the Odesskiy zavod imeni Kirova (Odessa Plant imeni Kirov). The program control in this machine increases productivity by 25-75 %. The spindle in this machine has 6 different speeds ranging from 145-2,900 rpm. The 5 electromotors have a total capacity of 1.7 kw. The coordinate-boring optical machine of the portal type model LR87 was produced by the Leningradskiy zavod imeni Sverdlova (Leningrad Plant imeni Sverdlov). It has an operating table of 2,200-1,400 mm (Figure 3) with a vertical and a horizontal spindle head. It is used for boring openings in details of up to

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2,000 kg. The spindle speeds range from 36-1,800 rpm. The vertical 6-spindle automatic hydraulic turning lathe of parallel action, model 1272 (Figure 4), was produced by the Moskovskiy zavod "Krasnyy proletariy" (Moscow Plant "Krasnyy proletariy"). It is used for machining details in mass production. The spindles have 56 speeds ranging from 65-1,440 rpm. The total power of all installed electromotors is 168 kw. There are 4 photos.

1. **Machine tools - USSR**

AUTHOR: Solopov, Ye.N., Engineer

SOV-117-58-9-10/22

TITLE: Exhibits of the Soviet Union (Eksponaty Sovetskogo Soyuza)

PERIODICAL: Mashinostroitel', 1958, Nr 9, pp 42-44 (USSR)

ABSTRACT: The article contains descriptions, illustrations and technical characteristics of the following machines exhibited at the Brussels Fair by the Soviet Union: 1) horizontal boring machine with program control of the "262 PR" type, 2) gear-cutting semi-automatic machine of the "528" type; 3) balancing automatic machine of the "9720" type; 4) gear-grinding semi-automatic machine of the "5872" type.
There are 4 photos.

1. Machine tools--USSR

Card 1/1

26/35

Exhibits of the Soviet Union. At the Brussels World Fair SOV-117-58-10-26/55

etc.); ultrasound broaching machine, model 4772, for machining of brittle and hard materials (glass, ceramic, quartz, ruby, germanium, flint, hard alloys, etc.). There are 6 photos and 6 tables.

1. Machine tools--USSR

Card 2/2

AUTHOR: Solopov, Ye.N., Engineer

SOV/117-58-11-33/36

TITLE: Exhibits of the Soviet Union (Eksponaty Sovetskogo Soyuza)

PERIODICAL: Mashinostroitel', 1958, Nr 11, pp 43 - 44 (USSR)

ABSTRACT: A device for program control has been developed for the three-coordinate milling machine model 6N13-PR. The program is recorded on a magnetic tape. The device is based on semiconductors. A device for digital program control of the vertical copying and milling machine model 6M42P of the vertical copying and milling machine model 6M42P is shown in Figure 2. The program is recorded on a perforated tape. The device contains 17 electronic tubes and 300 semi-conductor triodes. The turning lathe model 1K62 can be equipped with a device for digital program control which contains 150 semiconductor triodes. There are 3 photos.

1. Machine tools---Automation 2. Control systems---Equipment

Card 1/1

25(0) SOV/117-59-3-31/37

AUTHOR: Solopov, Ye. N., Engineer

TITLE: The Exhibits of the Soviet Union (Eksponaty Sovetskogo Soyuza)

PERIODICAL: Mashinostroitel', 1959, Nr 3, p 41 (USSR)

ABSTRACT: The article lists Soviet machine tools that were demonstrated at the Brussels World Fair and the prizes awarded for some machines.

Card 1/1

SOLOPOVA, A.I.

Method of determining the total amount of fat and wax substances and dyestuffs in a cotton fiber of natural color. Izv. AN Turk. SSR. Ser.biol.nauk no.2:25-30 '63. (MIRA 16:5)

1. Institut khimii AN Turkmenskoy SSR.
(COTTON—ANALYSIS)

POPOV, V.A., assistent; SOLOPOVA, K.Ye., assistent; YUSHKOV, P., kand.fiz.-matem.nauk, prof.

Determining natural frequencies of a shaft with a disk. Izv.vys. ucheb.zav.; mashinostr. no.6:71-77 '62. (MIRA 15:11)

1. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti.

(Shafting--Vibration)

SOLOPOVA, POLINA

Track Athletics

On the track. Mol. kolkh. no. 7, 1952

Monthly List of Russian Accessions, Library of Congress November 1952 UNCLASSIFIED

COUNTRY	:	USSR V
CATEGORY	:	Pharmacology and Toxicology. Chemotherapeutical Preparations. Antibiotics
ABS. JOUR.	:	RZhBiol., No. 1 1959, No. 4654
AUTHOR	:	Karakhodzhayev, B.; Solopova, Yu.S.
INST.	:	-
TITLE	:	Treatment of Dysenteric Children with Levomycetin
ORIG. PUB.	:	Med. zh. Uzbekistana, 1957, No.4, 29-31
ABSTRACT	:	No abstract

CARD: 1/1

SOLOMEVA, S.A.; TKACHENKO, V.K. (Kiyev)

Vasilii Dmitrievich Shervinskii. Vrach.delo no.3:323-324 Mr '60. (MIRA 13:6)

(SHERVINSKII, VASILII DMITRIEVICH, 1850-1941)

SOLOREVA, S.I.

Blood supply for human teeth. Probl. stom. 5:38[illegible]86 '60.
(MIRA 15:2)

1. Kiyevskiy meditsinskiy institut.
(TEETH--BLOOD SUPPLY)

SOLOS, A.

200 thousand kilometer run from ZIS -150 trucks before servicing. Avt. transp. 33 no.5:38 My '55. (MLRA 8:8)

1. Direktor transportnoy kontory Zaporozhskogo oblpotrebsoyuza.
(Motor trucks--Maintenance and repair)

EL'KINA, Yu.A.; SOLOSHCHEVA, V.M.; RAKHMANCHIK, G.I.

Colienteritis in young children. Zdrav.Belor. 5 no.8:44-47 Ag '59. (MIRA 12:10)

1. Iz kafedr infektsionnykh bolezney Minskogo meditsinskogo instituta (zaveduyushchiy - prof.A.N.Filippovich), Belorusskogo instituta usovershenstvovaniya vrachey (zaveduyushchiy - dotsent N.V.Bondareva) i Minskogo Instituta epidemiologii, mikrobiologii i gigiyeny (direktor V.I.Votyakov).
(ESCHERICHIA COLI) (INTESTINES--DISEASES)

BONDAREVA, N.V.; SOLOSHCHEVA, V.M.

Clinical aspects of influenza. Zdrav. Bel. 9 no.8:15-18 Ag'63 (MIRA 17:3)

1. Iz kafedry infektsionnykh bolezney Belorusskogo gosudarstvennogo instituta usovershenstvovaniya vrachey (zav. - prof. M.N.Bessonova) i Minskoy infektsionnoy bol'nitsy (glavnyy vrach Z.G. Alikina).

L 4911-66 FBD/ENT(1)/EWA(h) GW/WS-2

ACC NR: AP5027023 SOURCE CODE: UR/0120/65/000/005/0120/0123

AUTHOR: Aynbinder, I. M.; Soloshek, L. K.; Zakharov, A. V.

ORG: none

TITLE: Modulating radiometer with parametric converter input

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 120-123

TOPIC TAGS: radiometer, radio telescope

ABSTRACT: A low-noise radiometer intended for the study of weak radio emission from the Moon and Jupiter at 70.25 cm is described. The block diagram of the radiometer is shown in the figure. The antenna switch employs DGTs-27 diodes whose capacitances

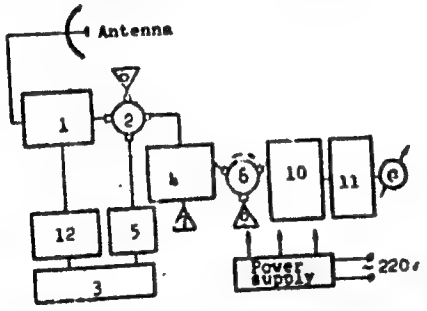

Fig. 1. Modulation radiometer

1 - Directional coupler; 2 - 3-way switch; 3 - noise generator; 4 - antenna switch; 5 - divider; 6 and 7 - cold noise temperature reference; 8 - ferrite coupler; 9 - balancing load; 10 - parametric amplifier; 11 - standard P-5-9 i.f. and lf amplifier.

UDC: 621.317.63:621.317.794

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L 4911-66

ACC NR: AP5027023

are compensated by inductances. In the off position, the transmission loss through the switch is 18 db; in the on position, it is 0.2—0.3 db; VSWR = 1.21:1. It has a 3-db bandwidth of 15%, and switching time is 15—20% of the modulating period. The ferrite directional coupler (8) is a Y-circulator with 1.6-db transmission loss in the forward direction and 17.3 db in the backward direction; VSWR = 1.12:1. In order to provide maximum sensitivity, additive noise is applied through the attenuator (12) to the antenna arm, balancing the temperature of the arms. The parametric amplifier design assures maximum sensitivity by maximizing the ratio of its noise temperature to the bandwidth, keeping the regeneration factor low (0.5—0.6). The parametric converter converts the input signal to the i.f. range with the aid of a klystron oscillator with a 9228-Mc pump frequency. An additional 398-Mc BFO and a balanced mixer form the output signal. Converter noise temperature is 150K with 15-Mc bandwidth; however, in order to assure proper coupling with coupler 8, the converter temperature (allowing for losses in the coupler) is 300K. Orig. art. has: 2 figures. [BD]

SUB CODE: EC, M/SUBM DATE: 14Jul64/ ORIG REF: 001/ ATD PRESS: 4136

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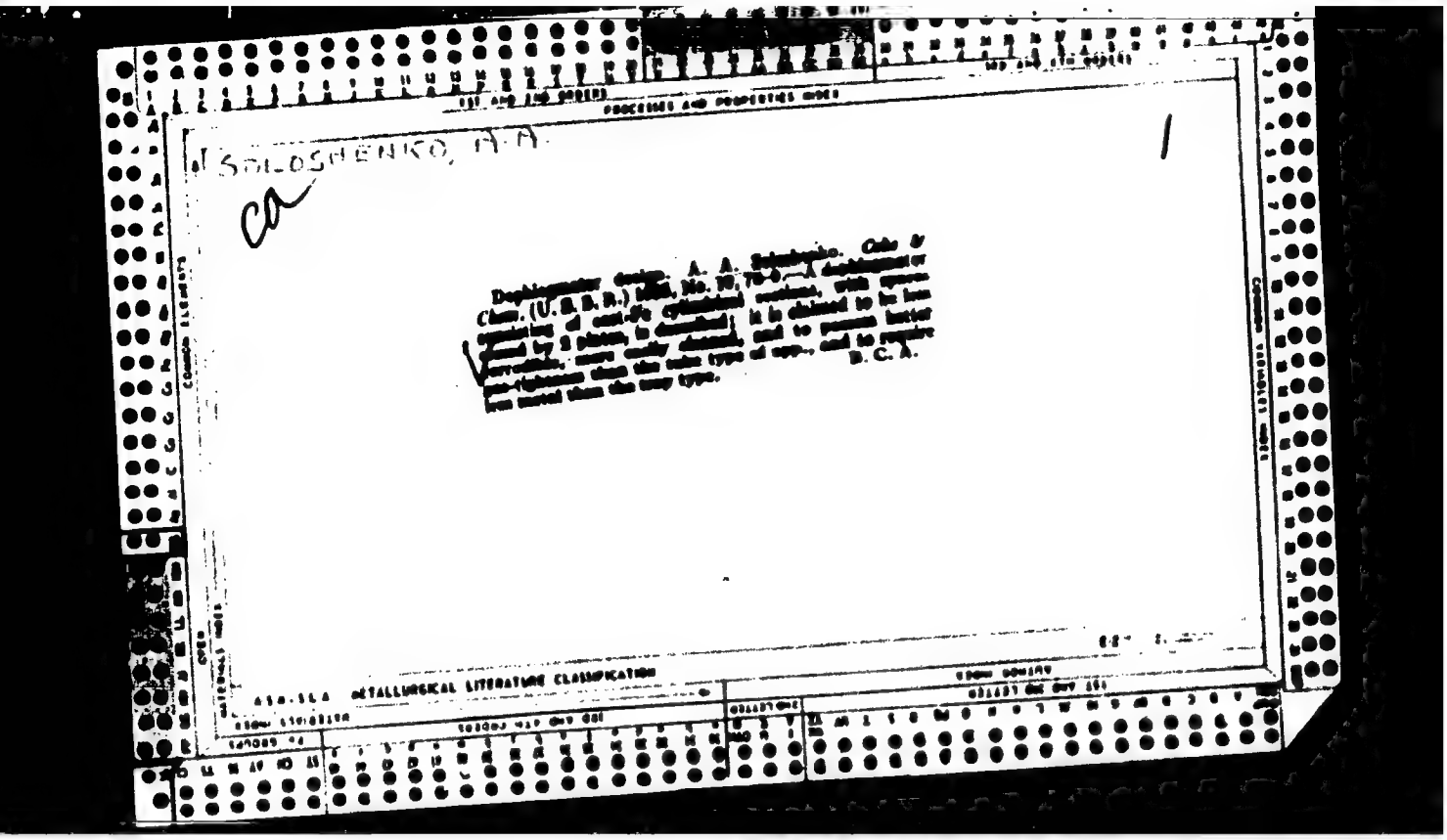

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77498
SOV/80-33-1-7/49

AUTHORS: Kireyeva, M. V., Soloshenko, A. A.

TITLE: Concerning the Role of Calcium Oxide in the Oxidation Process of Chromite Charges

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 43-49 (USSR)

ABSTRACT: Investigation of the oxidation of chromite ores with lime in rotary kiln roasting conditions showed that Cr reacts with CaO to form a compound soluble in acid which, according to chemical, microscopic, and X-ray analysis, corresponds to the chromato-chromite $9CaO \cdot 4CrO_3 \cdot Cr_2O_3$:

$$3(MgO \cdot Cr_2O_3) + 9CaO + 3O_2 = 9CaO \cdot 4CrO_3 \cdot Cr_2O_3 + 3MgO.$$

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The above chromato-chromite reacts quickly and at low temperature with soda and gives Na_2CrO_4:

$$9CaO \cdot 4CrO_3 \cdot Cr_2O_3 + 6Na_2CO_3 + \frac{3}{2} O_2 = 6Na_2CrO_4 + 9CaO + 6CO_2.$$

A new method of roasting chromite ores is advanced by the authors. The ore is mixed with lime and 3% soda (based on the weight of the charge), and roasted in a rotary kiln at 1,000° C. The clinker thus obtained is mixed with soda in the stoichiometric proportion necessary for the formation of sodium monochromate, and the mixture is roasted again at 600-700° C. There are 7 tables; 3 figures; and 6 references, 2 U.K., 4 Soviet. The U.K. references are: W. F. Ford, W. F. Rees, Trans. Brit. Ceram. Soc., 47, 6, 207 (1948); W. F. Ford, J. White, ibid., 48, 10, 417 (1948).

SUBMITTED: February 16, 1959
Card 2/2

18.3200

77637
SOV/80-33-2-12/52

AUTHORS: Kireyeva, M. V., Soloshenko, A. A.

TITLE: Concerning the Composition of Chromite Charges

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 337-340 (USSR)

ABSTRACT: The minimum amount of CaO required for binding SiO_2, Al_2O_3, and Fe_2O_3 during the roasting of chromites was usually determined by formula (I):

$$CaO = 1.88\ SiO_2 + 0.91\ Al_2O_3 + 0.82\ Fe_2O_3. \quad (1)$$

where CaO is amount of calcium oxide (in g) per 100 g of ore; Al_2O_3, SiO_2, and Fe_2O_3 are the percentual contents of the oxides in the ore. It was assumed that CaO is necessary only to neutralize these acid

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Concerning the Composition of Chromite Charges

77637
SOV/80-33-2-12/52

oxides which form, with CaO, the compounds $4CaO \cdot Al_2O_3 \cdot Fe_2O_3$; $5CaO \cdot 3Al_2O_3$; and β-$2CaO \cdot SiO_2$. The authors established previously (this journal 1960, abstract 77498) that CaO reacts also with chromium and forms an acid-soluble chromato-chromite $9CaO \cdot 4CrO_3 \cdot Cr_2O_3$ which combines easily with soda and gives sodium chromate. Study of the plots of the degree of chromium oxidation (in %) against the ratio CaO/Cr_2O_3 at various roasting times showed that the additional amount of CaO needed for the reaction with chromium is 0.30-0.33 Cr_2O_3 where Cr_2O_3 is content of this oxide in the ore (in %). Formula (1) should be replaced, therefore, by formula (2):

$$CaO = 1.88\ SiO_2 + 0.91\ Al_2O_3 + 0.82\ Fe_2O_3 + 0.31\ Cr_2O_3. \qquad (2)$$

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which is valid for charges containing 16.5-20.0% Cr_2O_3.

Concerning the Composition of Chromite Charges

77037
SOV/80-33-2-12/51

There are 3 tables; 4 figures; and 1 Soviet reference.

SUBMITTED: June 2, 1959

Card 3/3

SOLOSHENKO, A.A.; VIL'NYANSKIY, Ya.Ye.

Kinetics of hydrogen chloride oxidation on a chromium oxide catalyst. Kin. i kat. 5 no.5:881-887 S-O '64. (MIRA 17:12)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut.

L 30961-66 EWT(1) AT

ACC NR: AP6013133 SOURCE CODE: UR/0057/66/036/004/0749/0753

38
B

AUTHOR: Nayda, A. P., Soloshenko, I. A.

ORG: none

TITLE: Anomalous ion diffusion and heating in a plasma column

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 749-753

TOPIC TAGS: plasma diffusion, plasma instability, plasma temperature, plasma pinch

ABSTRACT: A study was made of the diffusion of ions in a plasma column across a magnetic field and their distribution with respect to energy as a function of hydrogen gas pressure and the magnetic field. The plasma was generated in an arc-discharge source. The experimental setup is shown in Fig. 1. The column was formed

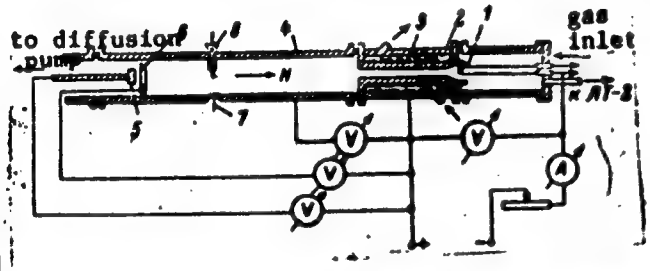

Fig. 1. Schematic of experimental setup.

1 - Cathode; 2 - anode; 3 - cooling; 4 - chamber; 5 - collector; 6 - membrane; 7 - wall probe; 8 - twin probe.

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ACC NR: AP6013133

by letting the plasma flow along the magnetic field in an insulated copper chamber (44 mm in diameter) through an aperture (10 mm in diameter and 150 mm long) in the anode of the source. The column thus obtained hits an insulated collector (15 mm in diameter) placed 30 cm behind the outlet aperture of the anode. An insulated copper membrane (inside diameter 15 mm, outside diameter 40 mm) was mounted 1 cm ahead the collector. The chamber was pumped at a rate of 200 l/sec. The residual gas pressure in the chamber was about 10^{-6} mm Hg. Pressure in the source was kept in the range $3 \cdot 10^{-2} - 10^{-3}$ mm Hg. The average pressure in the chamber was proportional to the pressure in the source and approximately one order of magnitude lower. Both the plasma source and the chamber were subjected to the homogeneous magnetic field. The magnetic field strength was in the range 180—1500 oe. The ion diffusion in the plasma column was measured by a direct method developed earlier by I. A. Vasil'yeva et al. Constant current and voltage were used in all measurements. It was found that by reducing either the gas pressure or the magnetic field strength below a certain critical value an unstable plasma column is obtained leading to an anomalous ion diffusion and to a sharp rise in the transverse ion temperature. It was noted that before the onset of instability, the Larmor diameter of ions was close to that of the plasma column. Orig. art. has: 4 figures. [JR]

SUB CODE: 20/ SUBM DATE: 12Apr65/ ORIG REF: 005/ OTH REF: 001/ ATD PRESS: 4239

Card 2/2

24(6) PHASE I BOOK EXPLOITATION SOV/2355

Akademiya nauk SSSR

Nekotoryye problemy prochnosti tverdogo tela; sbornik statey (Some Problems in the Strength of Solids; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 386 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: V. I. Aver'yanov; Tech. Ed.: R. S. Pevzner; Editorial Board: A.F. Ioffe, Academician; G. V. Kurdyumov, Academician; S. N. Zhurkov, Corresponding Member, USSR Academy of Sciences; B. P. Konstantinov, Corresponding Member, USSR Academy of Sciences; P. F. Vitman, Doctor of Physical and Mathematical Sciences, Professor (Resp. Ed.); L. A. Glikman, Doctor of Technical Sciences, Professor; E. A. Zlatin, Doctor of Physical and Mathematical Sciences; V. A. Stepanov, Doctor of Technical Sciences; Ya.B. Fridman, Doctor of Technical Sciences, Professor; B. S. Ioffe, Candidate of Technical Sciences (Deputy Resp. Ed.).

PURPOSE: This book is intended for construction engineers, technologists, physicists and other persons interested in the strength of materials.

COVERAGE: This collection of articles was compiled by the Otdeleniye fiziko-matematicheskikh nauk AN SSSR (Department of Physical and Mathematical Sciences) and the Fiziko-tekhnicheskiy institut AN SSSR (Institute of Applied Physics, Academy of Sciences, USSR) in commemoration of the 80th birthday of Nikolay Nikolayevich Davidenkov, Member of the Ukrainian Academy of Sciences, founder and head of the Otdel prochnosti materialov (Department of the Strength of Materials) at the Institute of Applied Physics, Academy of Sciences, USSR, founder of the Fakul'tet fizicheskogo metallovedeniya (Department of Physical Metallurgy) at the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute), recipient of the Stalin Prize (1943), the Order of the Red Banner of Labor (1945) and the Order of Lenin (1953). The articles deal with the strength of materials, phenomena of imperfect elasticity, temper brittleness, hydrogen embrittlement, cold brittleness, influence of deformation speed on the mechanical properties of materials, fatigue of metals, and general problems of the strength, plasticity, and mechanical properties of nonmetals. Numerous personalities are mentioned in the introductory profile of Professor Davidenkov. References are given at the end of each article.

83006

S/181/60/002/008/025/045
B006/B063

24.4100

AUTHOR: Soloshenko, I. I.

TITLE: The Dependence of the Decrement of Damping on the Number of Cycles in Fatigue Tests

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 8, pp. 1864 - 1868

TEXT: The investigations described in the present paper were performed with natural rock-salt crystals 30x10x2 mm^3 large, which had previously been annealed for 2-2.5 days at 650°C. They were arranged as described in the paper of Ref. 4 and schematically shown in Fig. 1, after which they were examined at room temperature and a frequency of about 1 cps. The decrement, δ, was determined from the relation $\delta = \ln 2/n$, where n denotes the number of vibrations occurring until the amplitude has dropped to half its value. Control measurements of the decrement were carried out every 24 hours during the first 40 days and later every four to five hours. Results of the measurement of sample No. 90 are

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The Dependence of the Decrement of Damping on the Number of Cycles in Fatigue Tests

shown in Fig. 2 (δ as a function of the number of cycles). Within 45 days, the crystal was subjected to about $4 \cdot 10^6$ bending vibrations of constant amplitude until it broke. During the first 2,000 vibrations δ decreased rapidly; later, it remained almost unchanged. Next, the results of other authors are discussed, and the results of the present work are summed up: 1) The diagram obtained is a complete representation of the dependence of the decrement of damping on the number of vibrations, from the first vibrations until the breaking of the rock-salt crystal. 2) This diagram permits the determination of the fatigue limit (where the decrement of damping shows he first discontinuity in the diagram). 3) On the basis of the laws governing the change in the decrement of damping with progressing fatigue it is possible to divide this process into five stages: 1) solidification; 2) continuous work in the solid state; 3) formation of cracks; 4) development of cracks; 5) breaking. Finally, the author thanks R. I. Garber and I. A. Gindin for their interest in this work and discussions. L. A. Glikman, V. A. Zhuravlev, T. N. Snezhkova, M. A. Bol'shanina, and V. Ye. Panin are also mentioned. There are 3 figures and 9 Soviet references.

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83036

The Dependence of the Decrement of Damping on the Number of Cycles in Fatigue Tests

S/181/60/002/008/025/045
B006/B063

ASSOCIATION: Khar'kovskiy pedagogicheskiy institut fizicheskogo vospitaniya im. G. S. Skovorody (Khar'kov Pedagogical Institute of Teaching of Physics imeni G. S. Skovoroda)

SUBMITTED: January 11, 1960

X

Card 3/3

S/126/60/010/006/020/022
E201/E491

AUTHORS: Garber, R.I. and Soloshenko, I.I.

TITLE: The Dependence of the Damping Decrement on the Amplitude of Elastic Vibrations and the Plastic Deformation of Overstressed Micro-Regions

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.6, pp.934-937

TEXT: The authors show that changes of the damping decrement (δ) indicate that hardening of crystals by plastic deformation at large vibration amplitudes (a) does not preclude hardening at small vibration amplitudes. For each effective stress (σ) there is a set of weak points which can be cured by plastic deformation. To verify these theoretical conclusions, the damping decrement was measured at various values of N (the total number of vibrations) and σ for rocksalt monocrystals and polycrystalline plates of commercial lead. All measurements were carried out at 1 c/s at room temperature. The results for rocksalt (Fig.1 and 2) and lead (Fig.3), plotted in the form of $\delta(N)$ curves at various values of σ, confirmed the conclusions arrived at theoretically. There

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E201/E491

The Dependence of the Damping Decrement on the Amplitude of Elastic Vibrations and the Plastic Deformation of Overstressed Micro-Regions

are 3 figures and 6 references: 5 Soviet and 1 non-Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy pedagogicheskiy institut fizicheskogo vospitaniya im. G.S.Skovorody
(Khar'kov State Pedagogical Institute for Physical Training imeni G.S.Skovoroda)

SUBMITTED: June 7, 1960

Card 2/2

GARBER, R.I.; SOLOSHENKO, I.I.

Effect of annealing on the decrease in the damping of an alternating elastic-plastic flexure. Fiz. met. i metalloved. 12 no.1:153-155 Jl '61. (MIRA 14:8)

1. Khar'kovskiy pedagogicheskiy institut imeni G.S.Skovorody.
(Metal crystals) (Deformations (Mechanics))

ACCESSION NR: AR4044007 S/0058/64/000/006/E052/E052

SOURCE: Ref. zh. Fizika, Abs. 6E388

AUTHOR: Garber, R. I.; Soloshenko, I. I.

TITLE: The accumulation of microflaws during elastico-plastic alternating bending

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963, 80-84

TOPIC TAGS: microflaw, elasticoplastic bending, alternating bending, crystal, transparent crystal

TRANSLATION: Studies the regularities of the accumulation, in transparent crystals, during elastico-plastic bending, of dislocations and flaws that scatter light, and investigates the influence of this accumulation on internal friction. Investigates NaCl and LiF single crystals preliminarily annealed at 650C for 40 and 25 hours, respectively. The amplitude of the stress was 200 g/mm^2. The obtained curves of the dependence of the logarithmic decrement δ and the value of the photocurrent (transparency) I on the number of bending oscillations of the sample N

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ACCESSION NR: AR4044007

show that with increasing N the integral scattering of white light increases. Saturation in the change of these properties is observed after 10^4 cycles. During steps and holding of the crystal without load there occure partial recovery of transparency with unchanged δ.

SUB CODE: SS, ME ENCL: 00

Card 2/2

ACCESSION NR: AR4041609 S/0137/64/000/005/I049/I049

SOURCE: Ref. zh. Metallurgiya, Abs. 5I289

AUTHOR: Garber, R. I.; Soloshenko, I. I.

TITLE: Accumulation of microdefects during elastico-plastic reverse bend

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963, 80-84

TOPIC TAGS: microdefect, crystal, elasticoplastic bend, reverse bend

TRANSLATION: On special installation, a diagram and description of which are given, regularities are studied of accumulation in transparent crystals during elastico-plastic bend of the dislocations and defects scattering light, and the influence of accumulation of defects on internal friction. Working frequency of forced oscillations of samples amounted to ~1 cps. Integral light scattering was determined on electronic installation with FEU-18A photomultiplier. Intensity of light scattering was measured with motionless sample — during stops of pendulum.

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L 00734-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) JD

ACCESSION NR: AP5022700 UR/0181/65/007/009/2655/2659

AUTHOR: Garber, R. I.; Soloshenko, I. I.; Khaldey, O. A.

TITLE: Relaxation of critical stresses of motion and critical stresses of multiplication of dislocations with repeated bending

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2655-2659

TOPIC TAGS: lithium fluoride, sodium chloride, plastic deformation, bend test, bending stress, stress relaxation

ABSTRACT: Critical stresses of multiplication and motion of dislocations are studied in lithium fluoride and sodium chloride specimens as functions of the number of loading cycles, the temperature and the loading method. It is found that there is a reduction in the critical stress with an increase in the number of cycles. For LiF, one-time loading is associated with a stress of 600, ten times loading with 250, and 100 times with 70 $g \cdot mm^{-2}$. The corresponding values for NaCl are 300, 150 and 50 $g \cdot mm^{-2}$. Mechanical strength increases with the number of cycles. This is shown by a gradual reduction in the number of regenerated dislocations and by a decrease in the damping constant of elastoplastic vibrations. Holding in the unloaded state at room temperature for 150 seconds after each loading cycle complete-

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ACCESSION NR: AP5022700

ly nullifies the effect of repeated bending. The effect is also cancelled by a frequency of 1 cps at a high temperature (300°C). It is assumed that the multiple loading effect is caused by separation of the dislocations from barriers. The energy of activation for effecting this separation is ~0.4 ev. The results show that the repeated action of small stresses can cause plastic deformations if the pauses are short enough to prevent reversal of the process. Orig. art. has: 10 figures, 1 table.

ASSOCIATION: Khar'kovskiy gosudarstvennyy pedagogicheskiy institut im. G. S. Skovorody (Kharkov State Pedagogical Institute)

SUBMITTED: 09Mar65 ENCL: 00 SUB CODE: AS

NO REF SOV: 003 OTHER: 002

Card 2/2

SOLOSHENKO, L.Z.

Role of fresh water animals in the epidemiology of leptospirosis. Zhur.mikrobiol.epid. i immun. 28 no.6:58-61 Je '57. (MIRA 10:10)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(LEPTOSPIROSIS, transmission,
by fresh water animals (Rus))
(ANIMALS,
fresh water, transm. of leptospirosis (Rus))

SOLOSHENKO, I.Z.

Role of blood-sucking arthropods in the transmission and preservation of pathogenic Leptospira. Report No.1: Role of blood-sucking arthropods in the transmission and preservation of the causative agent of Vasilev-Weil's disease. Zhur.mikrobiol.epid. i immun. no.1:22-27 Ja '58. (MIRA 11:4)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(WEILS DISEASE, transmission,
by arthropods (Rus)
(ARHTROPODS,
Weil's dis. transm. (Rus)

SOLOSHENKO, I.Z.; KHORAVA, G.V.

Carriage of Leptospirae by dogs in the Maritime Zone of the Abkhazian ASSR. Zhur. mikrobiol. epid. i immun. 31 no.7:140-141 Jl '60. (MIRA 13:9)

1. Iz Instituta epidemiologii i mikrobiologii im. Gamalei AMN SSSR i Gudautskoy infektsionnoy bol'nitsy.
(ABICHAZIA—LEPTOSPIROSIS)
(DOGS AS CARRIERS OF DISEASE)

SOLOSHENKO, I.Z.; KHORAVA, G.V.

Role of cattle in the epidemiology of leptospirosis icterohemorrhagiae. Zhur.mikrobiol.epid.i immun. 32 no.2:79-80 F '61. (MIRA 14:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR i Gudautskoy infektsionnoy bol'nitsy.
(WEIL'S DISEASE) (ABKHAZIA—CATTLE DISEASES AND PESTS)

SOLOSHENKO, I.Z.

Role of bloodsucking arthropods in transmitting and preserving pathogenic leptospirae. Report No. 2: Relation of bloodsucking arthropods to the pathogens of anicteric leptospirosis. Zhur. mikrobiol., epid.i immun. 33 no.4:31-34 Ap '62. (MIRA 15:10)

1.Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(INSECTS AS CARRIERS OF DISEASE) (LEPTOSPIROSIS)